

# Interior Low Plateau Cedar Glades

## Conservation Opportunity Area



### Cedar glade habitats are characterized by their limestone

outcrops and shallow soils. Middle Tennessee is highly recognized for its high concentration of these habitats, which are considered one of the rarest habitats in the southeastern United States. Other notable features of cedar glades are their association with dense thickets of cedar trees, upland forests, and grass dominated barrens in a matrix of different habitat types. These components of the cedar glade ecosystem create habitats for a diverse flora and fauna.

Pyne's Ground-plum (*Astragalus bibullatus*), a federally listed plant species, was once thought to be extirpated until recently rediscovered in cedar glades of Tennessee. The first- and second-order streams within the upland forests associated with cedar glades in middle Tennessee provide terrestrial and breeding habitat for the Streamside Salamander, a species of Greatest Conservation Need. This salamander requires both upland forests and streams to complete its life cycle.

Population growth is expected to continue in this region at one of the highest rates for the state overall during the coming decades. Urban sprawl threatens to further reduce, degrade and fragment glade habitats. Many of the cedar glades' rare species of flora and fauna have evolved life history characteristics that reduce their ability to move across the environment, making connectivity among these habitats crucial for maintaining genetic diversity. Furthermore, many cedar glade and barren species evolved with fire (from lightning strikes and Native American management), and some require fire either for propagation or for maintenance of open habitat structure. Without active management using prescribed fire, the grass-dominated barrens within cedar glades will be lost.

### Public Lands within the COA

Black Fox Wetland, Cedars of Lebanon State Forest/State Park (SP)/State Natural Area (SNA), Couchville Cedar Glade SNA, Elsie Quarterman Cedar Glade SNA, Fat Sanders Barrens SNA, Flat Rock SNA, Gattingers Cedar Glade & Barrens SNA, Haley-Jaqueth Wildlife Management Area (WMA), John & Hester Lane Cedar Glades SNA, Long Hunter SP, Manus Road Cedar Glade SNA, Murfree Spring Wetland, Overbridge SNA, Percy Priest WMA, Stones River National Battlefield, Sunnybell Cedar Glade SNA, Vesta Cedar Glade SNA, Vine Cedar Glade SNA, Walterhill Floodplain SNA



---

Middle Tennessee is highly recognized for its cedar glades, considered one of the rarest habitats in the southeastern United States.

---

Top to bottom: Couchville Cedar State Natural Area - [Byron Jorjorian](#)/next page: Pyne's Ground-plum ((*Astragalus bibullatus*) - [Ryan Kaldari](#)

# Interior Low Plateau Cedar Glades Conservation Opportunity Area

## Partnerships

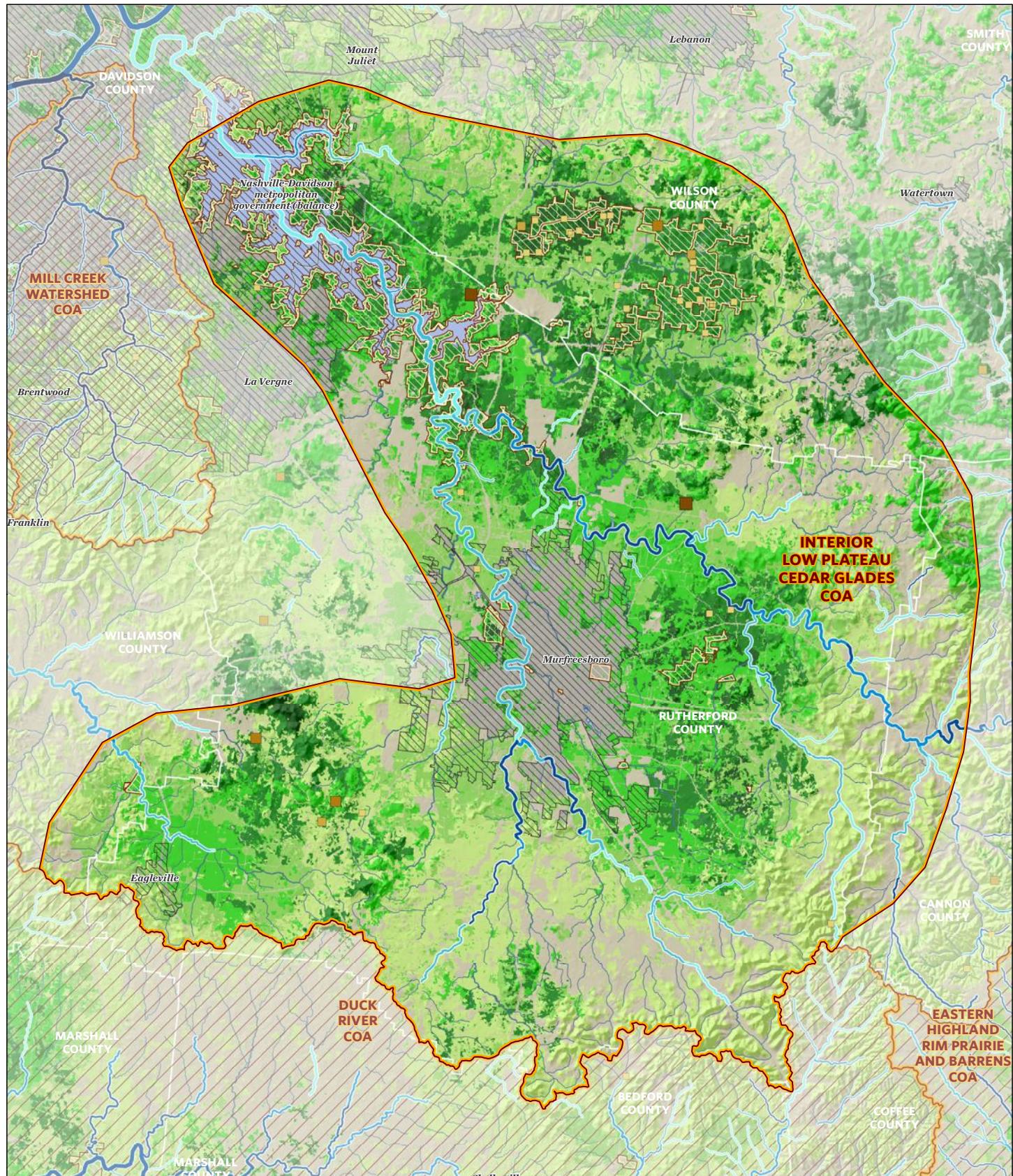
TWRA will implement strategies to improve protection and management of cedar glades, their associated matrix habitats, and many GCN plant and animal species. TWRA will develop and foster partnerships with the U.S. Fish and Wildlife Service, Natural Resources Conservation Service, U.S. Army Corps of Engineers, Tennessee Dept. of Environment and Conservation, Tennessee Valley Authority, The Nature Conservancy, Middle Tenn. State University, other universities, local governments, and private landowners.



Desired Change	Units
+ Increase the application of Best Management Practices to benefit GCN species and habitats on private lands using government funded incentive programs	number
+ Increase acres of native ecosystems by restoring pastures and agricultural lands.	acres
+ Restore acres or stream miles of degraded habitat.	acres/ miles
+ Increase acres of fire-dependent grasslands and forest managed with prescribed fire.	acres
+ Increase understanding of species' life history, ecological needs, geographical distribution and/or habitat changes through scientific surveys to improve management aimed at promoting survival over the long-term.	projects
+ Increase acres of habitat under permanent conservation management to benefit GCN species/increase habitat connectivity.	acres
+ Decrease the negative effects of development on GCN species and habitats by encouraging municipal and county governments to limit or regulate urban growth within critical units of aquatic, subterranean, and terrestrial habitats.	plans
+ Improve ecosystem management in conservation areas by developing and implementing integrated conservation plans for all public/private conservation areas within the COA.	plans

To learn more about the Interior Low Plateau Cedar Glades Conservation Opportunity Area, please contact: Josh Campbell, Wildlife Diversity Coordinator, Region 2 (615) 781-6626

## Interior Low Plateau Cedar Glades Conservation Opportunity Area Tennessee State Wildlife Action Plan 2015



0 2.5 5 Miles

Habitat Priority

	Karst Aquatic Terrestrial
Very High	[Dark Brown]
High	[Medium Brown]
Medium	[Light Brown]
Low	[Very Light Brown]
Very Low	[Off-white]

Conservation Opportunity Area

Protected Land



The Nature Conservancy  
Protecting nature. Preserving life.



INTERIOR LOW PLATEAU CEDAR GLADES COA GCN SPECIES (TN)	
Taxa Group	Scientific & Common names
Amphibian	<i>Ambystoma barbouri</i> (Streamside Salamander)
Amphibian	<i>Pseudotriton montanus</i> (Mud Salamander)
Bat	<i>Myotis grisescens</i> (Gray Bat)
Bat	<i>Myotis sodalis</i> (Indiana Bat)
Bat	<i>Perimyotis subflavus</i> (Tri-colored Bat)
Bird	<i>Accipiter striatus</i> (Sharp-shinned Hawk)
Bird	<i>Ammodramus leconteii</i> (LeConte's Sparrow)
Bird	<i>Ammodramus savannarum</i> (Grasshopper Sparrow)
Bird	<i>Anas rubripes</i> (American Black Duck)
Bird	<i>Aquila chrysaetos</i> (Golden Eagle)
Bird	<i>Asio flammeus</i> (Short-eared Owl)
Bird	<i>Bartramia longicauda</i> (Upland Sandpiper)
Bird	<i>Botaurus lentiginosus</i> (American Bittern)
Bird	<i>Calidris mauri</i> (Western Sandpiper)
Bird	<i>Calidris pusilla</i> (Semipalmated Sandpiper)
Bird	<i>Caprimulgus carolinensis</i> (Chuck-will's-widow)
Bird	<i>Caprimulgus vociferus</i> (Whip-poor-will)
Bird	<i>Cardellina canadensis</i> (Canada Warbler)
Bird	<i>Chaetura pelagica</i> (Chimney Swift)
Bird	<i>Chordeiles minor</i> (Common Nighthawk)
Bird	<i>Circus cyaneus</i> (Northern Harrier)
Bird	<i>Cistothorus platensis</i> (Sedge Wren)
Bird	<i>Colinus virginianus</i> (Northern Bobwhite)
Bird	<i>Egretta caerulea</i> (Little Blue Heron)
Bird	<i>Empidonax minimus</i> (Least Flycatcher)
Bird	<i>Empidonax traillii</i> (Willow Flycatcher)
Bird	<i>Euphagus carolinus</i> (Rusty Blackbird)
Bird	<i>Falco peregrinus</i> (Peregrine Falcon)
Bird	<i>Geothlypis Formosa</i> (Kentucky Warbler)
Bird	<i>Grus americana</i> (Whooping Crane)
Bird	<i>Haliaeetus leucocephalus</i> (Bald Eagle)
Bird	<i>Helmitheros vermivorum</i> (Worm-eating Warbler)
Bird	<i>Hylocichla mustelina</i> (Wood Thrush)
Bird	<i>Icteria virens</i> (Yellow-breasted Chat)
Bird	<i>Icterus spurius</i> (Orchard Oriole)
Bird	<i>Ictinia mississippiensis</i> (Mississippi Kite)
Bird	<i>Lanius ludovicianus</i> (Loggerhead Shrike)
Bird	<i>Limnothlypis swainsonii</i> (Swainson's Warbler)
Bird	<i>Melanerpes erythrocephalus</i> (Red-headed Woodpecker)
Bird	<i>Nycticorax nycticorax</i> (Black-crowned Night-heron)
Bird	<i>Parkesia motacilla</i> (Louisiana Waterthrush)
Bird	<i>Pluvialis dominica</i> (American Golden Plover)
Bird	<i>Protonotaria citrea</i> (Prothonotary Warbler)
Bird	<i>Riparia riparia</i> (Bank Swallow)
Bird	<i>Scolopax minor</i> (American Woodcock)
Bird	<i>Setophaga cerulea</i> (Cerulean Warbler)
Bird	<i>Setophaga discolor</i> (Prairie Warbler)
Bird	<i>Setophaga fusca</i> (Blackburnian Warbler)
Bird	<i>Sturnella magna</i> (Eastern Meadowlark)
Bird	<i>Thryomanes bewickii</i> (Bewick's Wren)
Bird	<i>Tryngites subruficollis</i> (Buff-breasted Sandpiper)
Bird	<i>Tyto alba</i> (Barn Owl)

INTERIOR LOW PLATEAU CEDAR GLADES COA GCN SPECIES (TN)	
Taxa Group	Scientific & Common names
Bird	<i>Vermivora cyanoptera</i> (Blue-winged Warbler)
Bivalve	<i>Alasmidonta viridis</i> (Slippershell Mussel)
Bivalve	<i>Medionidus conradicus</i> (Cumberland Moccasinshell)
Bivalve	<i>Pleurobema gibberum</i> (Cumberland Pigtoe)
Bivalve	<i>Quadrula cylindrica cylindrica</i> (Rabbitsfoot)
Bivalve	<i>Villosa taeniata</i> (Painted Creekshell)
Crustacean	<i>Cambarus williami</i> (Brawleys Fork Crayfish)
Fish	<i>Erimonax monachus</i> (Spotfin Chub)
Fish	<i>Erimystax insignis</i> (Blotched Chub)
Fish	<i>Etheostoma luteovinctum</i> (Redband Darter)
Fish	<i>Etheostoma microlepidum</i> (Smallscale Darter)
Fish	<i>Notropis rubellus</i> (Rosyface Shiner)
Fish	<i>Notropis rupestris</i> (Bedrock Shiner)
Insect	<i>Gomphus sandrius</i> (Tennessee Clubtail)
Mammal	<i>Neotoma magister</i> (Allegheny Woodrat)
Mammal	<i>Zapus hudsonius</i> (Meadow Jumping Mouse)
Plant	<i>Allium burdickii</i> (Narrow-leaf Ramps)
Plant	<i>Allium stellatum</i> (Glade Onion)
Plant	<i>Ammoselinum popei</i> (Pope's Sand-parsley)
Plant	<i>Amsonia tabernaemontana</i> var. <i>gattingeri</i> (Limestone Blue Star)
Plant	<i>Anemone caroliniana</i> (Carolina Anemone)
Plant	<i>Turritis glabra</i> (Tower-mustard)
Plant	<i>Arabis hirsuta</i> (Western Hairy Rockcress)
Plant	<i>Arnoglossum plantagineum</i> (Fen Indian-plantain)
Plant	<i>Astragalus bibullatus</i> (Pyne's Ground-plum)
Plant	<i>Astragalus tennesseensis</i> (Tennessee Milk-vetch)
Plant	<i>Boechera perstellata</i> (Braun's Rockcress)
Plant	<i>Carex davisii</i> (Davis' Sedge)
Plant	<i>Castanea dentata</i> (American Chestnut)
Plant	<i>Dalea candida</i> (White Prairie-clover)
Plant	<i>Dalea foliosa</i> (Leafy Prairie-clover)
Plant	<i>Dalea purpurea</i> (Purple Prairie-clover)
Plant	<i>Echinacea simulata</i> (Wavy-leaf Purple Coneflower)
Plant	<i>Echinacea tennesseensis</i> (Tennessee Coneflower)
Plant	<i>Eleocharis wolfii</i> (Wolf Spike-rush)
Plant	<i>Evolvulus nuttallianus</i> (Evolvulus)
Plant	<i>Fimbristylis puberula</i> (Hairy Fimbristylis)
Plant	<i>Gentiana puberulenta</i> (Downy Gentian)
Plant	<i>Helianthus occidentalis</i> (Naked-stem Sunflower)
Plant	<i>Isoetes melanopoda</i> (Blackfoot Quillwort)
Plant	<i>Juglans cinerea</i> (Butternut)
Plant	<i>Lejeunea sharpii</i> (Sharp's Lejeunea)
Plant	<i>Liatris cylindracea</i> (Slender Blazing-star)
Plant	<i>Lilium canadense</i> (Canada Lily)
Plant	<i>Lilium michiganense</i> (Michigan Lily)
Plant	<i>Mirabilis albida</i> (Pale Umbrella-wort)
Plant	<i>Neviusia alabamensis</i> (Alabama Snow-wreath)
Plant	<i>Oenothera macrocarpa</i> (Missouri Primrose)
Plant	<i>Onosmodium molle</i> ssp. <i>subsetosum</i> (Smooth False Gromwell)
Plant	<i>Panax quinquefolius</i> (American Ginseng)
Plant	<i>Paysonia densipila</i> (Duck River Bladderpod)
Plant	<i>Paysonia stonensis</i> (Stones River Bladderpod)

INTERIOR LOW PLATEAU CEDAR GLADES COA GCN SPECIES (TN)	
Taxa Group	Scientific & Common names
Plant	Perideridia americana (Thicket Parsley)
Plant	Phemeranthus calcaricus (Limestone Fame-flower)
Plant	Phlox bifida ssp. stellaria (Glade Cleft Phlox)
Plant	Phlox pilosa ssp. ozarkana (Ozark Downy Phlox)
Plant	Polygala boykinii (Boykin's Milkwort)
Plant	Prenanthes crepidinea (Nodding Rattlesnake-root)
Plant	Schoenolirion croceum (Yellow Sunnybell)
Plant	Scleria verticillata (Low Nutrush)
Plant	Silphium pinnatifidum (Southern Prairie-dock)
Plant	Solidago gattingeri (Gattinger's Goldenrod)
Plant	Sporobolus heterolepis (Northern Dropseed)
Plant	Stellaria fontinalis (Water Stitchwort)
Plant	Trifolium calcaricum (Running Glade Clover)
Plant	Veronica catenata (Sessile Water-speedwell)
Plant	Zanthoxylum americanum (Northern Prickly-ash)
Reptile	Crotalus horridus (Timber Rattlesnake)
Reptile	Terrapene carolina (Eastern Box Turtle)
Subterranean - Amphibian	Gyrinophilus palleucus (Tennessee Cave Salamander)
Subterranean - Amphibian	Gyrinophilus palleucus necturoides (Big Mouth Cave Salamander)
Subterranean - Amphibian	Gyrinophilus palleucus palleucus (Pale Salamander)
Subterranean - Arachnid	Eidmanella pallida (Pallid cave spider)
Subterranean - Arachnid	Hesperochernes mirabilis (Southeastern Cave Pseudoscorpion)
Subterranean - Arachnid	Liocranoides coylei (Coyle's tengellid spider)
Subterranean - Arachnid	Macrocheles sp. 1 (mite)
Subterranean - Arachnid	Phanetta subterranea (Subterranean sheet-web spider)
Subterranean - Crustacean	Batrurus undescribed sp. (groundwater amphipod)
Subterranean - Crustacean	Caecidotea birenata ((a cave obligate isopod))
Subterranean - Crustacean	Caecidotea birenata birenata ((a cave obligate isopod))
Subterranean - Crustacean	Cambarus tenebrosus (Cavespring Crayfish)
Subterranean - Crustacean	Stygobromus exilis (Central Kentucky Cave Obligate)
Subterranean - Crustacean	Triconiscus pusillus (terrestrial isopod)
Subterranean - Fish	Typhlichthys subterraneus (Southern Cavefish)
Subterranean - Flatworm	Sphalloplana percoeca ((a cave obligate planarian))
Subterranean - Insect	Atheta annexa ((a rove beetle))
Subterranean - Insect	Atheta troglophila ((a troglophilic rove beetle))
Subterranean - Insect	Batriasymmodes quisnamus ((a cave obligate beetle))
Subterranean - Insect	Ceratophysella undescribed sp., denticulata group (springtail)
Subterranean - Insect	Ceuthophilus sp. (cave crickets)
Subterranean - Insect	Folsomia candida (springtail)
Subterranean - Insect	Litocampa cookei (Cooke's Cave Dipluran)
Subterranean - Insect	Megaselia cavernicola (cave hump-backed fly)
Subterranean - Insect	Nemadus horni (small carrion beetle)
Subterranean - Insect	Platynus tenuicollis (ground beetle)
Subterranean - Insect	Pseudanophthalmus acherontis (Echo Cave Beetle)
Subterranean - Insect	Pseudosinella hirsuta (Hirsute Cave Springtail)
Subterranean - Insect	Spelobia tenebrarum (Cave dung fly)
Subterranean - Millipede	Scoterpes musicaristica ((a cave obligate millipede))
Subterranean - Millipede	Scoterpes tricornis ((a cave obligate millipede))

INTERIOR LOW PLATEAU CEDAR GLADES COA HABITATS	
Terrestrial Habitat Type	Total acres of very high, high, and medium ranked habitat
<b>Natural habitats</b>	
Southern Interior Low Plateau Dry-Mesic Oak Forest	56664
Nashville Basin Limestone Glade and Woodland	55476
South-Central Interior Mesophytic Forest	3870
South-Central Interior Small Stream and Riparian	814
South-Central Interior Large Floodplain	50
<b>Semi-natural habitats</b>	
Pasture	36112
Old Field / Successional	18336
Cropland	5841
Aquatic Habitat Type	Total stream miles of very high, high, and medium ranked habitat
Headwaters and Streams	13
Small River	46